●   ●56 ⁴⁾)   Pu/10

CRF Errors Corrected by the STIC Systems Branch

Serial Number: _10/019470_

ENTERED

CRF Processing Date: _1/27/2002_
Edited by: _____
Verified by: ___/\~___ (STIC staff)

☐ Changed a file from non-ASCII to ASCII.

☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.

☐ Edited a format error in the Current Application Data section, specifically:
_____

☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____.

☐ Added the mandatory heading and subheadings for "Current Application Data".

☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically:
_____

☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:
_____

☐ Inserted or corrected a nucleic number at the end of a nucleic line.   SEQ ID NO's edited:
_____

☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

☐ Inserted colons after headings/subheadings. Headings edited included: .   '
_____

☐ Deleted extra, invalid, headings used by an applicant, specifically:
_____

☑ Deleted: ☑ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as_____ .

☐ Inserted mandatory headings, specifically: _____

☐ Corrected an obvious error in the response, specifically:
_____

☐ Edited identifiers where upper case is used but lower case is required, or vice versa.

☐ Corrected an error in the Number of Sequences field, specifically:
_____

☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____

☐ Other:
_____
_____
_____

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.   3/1/95

PCT10

```
              RAW SEQUENCE LISTING                DATE: 01/27/2002
              PATENT APPLICATION:  US/10/019,470  TIME: 19:50:01

              Input Set : A:\PTO.AMC.txt
              Output Set: N:\CRF3\01272002\J019470.raw


    3 <110> APPLICANT: Brett P. Monia
    4        Lex M. Cowsert
    6 <120> TITLE OF INVENTION: ANTISENSE MODULATION OF LIVER GLYCOGEN PHOSPHORYLASE
EXPRESSION
    8 <130> FILE REFERENCE: RTSP-0240
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/019,470
C--> 10 <141> CURRENT FILING DATE: 2001-12-28
   10 <150> PRIOR APPLICATION NUMBER: US 09/357,071
   11 <151> PRIOR FILING DATE: 1999-07-19
   13 <160> NUMBER OF SEQ ID NOS: 47
   15 <210> SEQ ID NO: 1
   16 <211> LENGTH: 2828
   17 <212> TYPE: DNA
   18 <213> ORGANISM: Homo sapiens
   20 <220> FEATURE:
   21 <221> NAME/KEY: CDS
   22 <222> LOCATION: (114)..(2657)
   24 <400> SEQUENCE: 1
   25 gttgaaagct cctggcgcgg cggggcggac tccacccctg cccggcagcc cagcgcctcc      60
   27 ggccgcactt ccagctctct gcgcagcccg ccgcgcagcc cgccgcccca gcc atg      116
   28                                                              Met
   29                                                              1
   31 ggc gaa ccg ctg aca gac cag gag aag cgg cgg cag atc agc atc cgc      164
   32 Gly Glu Pro Leu Thr Asp Gln Glu Lys Arg Arg Gln Ile Ser Ile Arg
   33                 5                   10                  15
   35 ggc atc gtg ggc gtg gag aac gtg gca gag ctg aag aag agt ttc aac      212
   36 Gly Ile Val Gly Val Glu Asn Val Ala Glu Leu Lys Lys Ser Phe Asn
   37                 20                  25                  30
   39 cgg cac ctg cac ttc acg ctg gtc aag gac cgc aac gtg gcc acc acc      260
   40 Arg His Leu His Phe Thr Leu Val Lys Asp Arg Asn Val Ala Thr Thr
   41         35                  40                  45
   43 cgc gac tac tac ttc gcg ctg gcg cac acg gtg cgg gac cac ctg gtg      308
   44 Arg Asp Tyr Tyr Phe Ala Leu Ala His Thr Val Arg Asp His Leu Val
   45   50                  55                  60                  65
   47 ggg cgc tgg atc cgc acg cag cag cac tac tac gac aag tgc ccc aag      356
   48 Gly Arg Trp Ile Arg Thr Gln Gln His Tyr Tyr Asp Lys Cys Pro Lys
   49                 70                  75                  80
   51 agg gaa tat tac ctc tct ctg gaa ttt tac atg ggc cga aca tta cag      404
   52 Arg Glu Tyr Tyr Leu Ser Leu Glu Phe Tyr Met Gly Arg Thr Leu Gln
   53                 85                  90                  95
   55 aac acc atg atc aac ctc ggt ctg caa aat gcc tgt gat gag gcc att      452
   56 Asn Thr Met Ile Asn Leu Gly Leu Gln Asn Ala Cys Asp Glu Ala Ile
   57         100                 105                 110
   59 tac cag ctt gga ttg gat ata gaa gag tta gaa gaa att gaa gaa gat      500
```

```
60  Tyr Gln Leu Gly Leu Asp Ile Glu Glu Leu Glu Glu Ile Glu Glu Asp
61      115                 120                 125
63  gct gga ctt ggc aat ggt ggt ctt ggg aga ctt gct gcc tgc ttc ttg      548
64  Ala Gly Leu Gly Asn Gly Gly Leu Gly Arg Leu Ala Ala Cys Phe Leu
65  130                 135                 140                 145
67  gat tcc atg gca acc ctg gga ctt gca gcc tat gga tac ggc att cgg      596
68  Asp Ser Met Ala Thr Leu Gly Leu Ala Ala Tyr Gly Tyr Gly Ile Arg
69                  150                 155                 160
71  tat gaa tat ggg att ttc aat cag aag atc cga gat gga tgg cag gta      644
72  Tyr Glu Tyr Gly Ile Phe Asn Gln Lys Ile Arg Asp Gly Trp Gln Val
73              165                 170                 175
75  gaa gaa gca gat gat tgg ctc aga tat gga aac cct tgg gag aag tcc      692
76  Glu Glu Ala Asp Asp Trp Leu Arg Tyr Gly Asn Pro Trp Glu Lys Ser
77          180                 185                 190
79  cgc cca gaa ttc atg ctg cct gtg cac ttc tat gga aaa gta gaa cac      740
80  Arg Pro Glu Phe Met Leu Pro Val His Phe Tyr Gly Lys Val Glu His
81      195                 200                 205
83  acc aac acc ggg acc aag tgg att gac act caa gtg gtc ctg gct ctg      788
84  Thr Asn Thr Gly Thr Lys Trp Ile Asp Thr Gln Val Val Leu Ala Leu
85  210                 215                 220                 225
87  cca tat gac acc ccc gag ccc ggc tac atg aat aac act gtc aac acc      836
88  Pro Tyr Asp Thr Pro Glu Pro Gly Tyr Met Asn Asn Thr Val Asn Thr
89                  230                 235                 240
91  atg cgc ctc tgg tct gct cgg gca cca aat gac ttt aac ctc aga gac      884
92  Met Arg Leu Trp Ser Ala Arg Ala Pro Asn Asp Phe Asn Leu Arg Asp
93              245                 250                 255
95  ttt aat gtt gga gac tac att cag gct gtg ctg gac cga aac ctg gcc      932
96  Phe Asn Val Gly Asp Tyr Ile Gln Ala Val Leu Asp Arg Asn Leu Ala
97          260                 265                 270
99  gag aac atc tcc cgg gtc ctc tat ccc aat gac aat ttt ttt gaa ggg      980
100 Glu Asn Ile Ser Arg Val Leu Tyr Pro Asn Asp Asn Phe Phe Glu Gly
101     275                 280                 285
103 aag gag cta aga ttg aag cag gaa tac ttt gtg gtg gct gca acc ttg      1028
104 Lys Glu Leu Arg Leu Lys Gln Glu Tyr Phe Val Val Ala Ala Thr Leu
105 290                 295                 300                 305
107 caa gat atc atc cgc cgt ttc aaa gcc tcc aag ttt ggc tcc acc cgt      1076
108 Gln Asp Ile Ile Arg Arg Phe Lys Ala Ser Lys Phe Gly Ser Thr Arg
109                 310                 315                 320
111 ggt caa gga act gtg ttt gat gcc ttc ccg gat cag gtg gcc atc cag      1124
112 Gly Gln Gly Thr Val Phe Asp Ala Phe Pro Asp Gln Val Ala Ile Gln
113             325                 330                 335
115 ctg aat gat act cac cct cgc atc gcg atc cct gag ctg atg agg att      1172
116 Leu Asn Asp Thr His Pro Arg Ile Ala Ile Pro Glu Leu Met Arg Ile
117         340                 345                 350
119 ttt gtg gat att gaa aaa ctg ccc tgg tcc aag gca tgg gag ctc aac      1220
120 Phe Val Asp Ile Glu Lys Leu Pro Trp Ser Lys Ala Trp Glu Leu Asn
121     355                 360                 365
123 cag aag acc ttc gcc tac acc aac cac aca gtg ctc ccg gaa gcc ctg      1268
124 Gln Lys Thr Phe Ala Tyr Thr Asn His Thr Val Leu Pro Glu Ala Leu
```

RAW SEQUENCE LISTING   DATE: 01/27/2002
PATENT APPLICATION: US/10/019,470   TIME: 19:50:01

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\01272002\J019470.raw

```
125 370                   375                   380                   385
127 gag cgc tgg ccc gtg gac ctg gtg gag aag ctg ctc cct cga cat ttg      1316
128 Glu Arg Trp Pro Val Asp Leu Val Glu Lys Leu Leu Pro Arg His Leu
129               390                   395                   400
131 gaa atc att tat gag ata aat cag aag cat tta gat aga att gtg gcc      1364
132 Glu Ile Ile Tyr Glu Ile Asn Gln Lys His Leu Asp Arg Ile Val Ala
133               405                   410                   415
135 ttg ttt cct aaa gat gtg gac cct ctg aga agg atg tct ctg ata gaa      1412
136 Leu Phe Pro Lys Asp Val Asp Pro Leu Arg Arg Met Ser Leu Ile Glu
137               420                   425                   430
139 gag gaa gga agc aaa agg atc aac atg gcc cat ctc tgc att gtc ggt      1460
140 Glu Glu Gly Ser Lys Arg Ile Asn Met Ala His Leu Cys Ile Val Gly
141       435                   440                   445
143 tcc cat gct gtg aat ggc gtg gct aaa atc cac tca gac atc gtg aag      1508
144 Ser His Ala Val Asn Gly Val Ala Lys Ile His Ser Asp Ile Val Lys
145 450                   455                   460                   465
147 act aaa gta ttc aag gac ttc agt gag cta gaa cct gac aag ttt cag      1556
148 Thr Lys Val Phe Lys Asp Phe Ser Glu Leu Glu Pro Asp Lys Phe Gln
149               470                   475                   480
151 aat aaa acc aat ggg atc act cca agg cgc tgg ctc cta ctc tgc aac      1604
152 Asn Lys Thr Asn Gly Ile Thr Pro Arg Arg Trp Leu Leu Leu Cys Asn
153               485                   490                   495
155 cca gga ctt gca gag ctc ata gca gag aaa att gga gaa gac tat gtg      1652
156 Pro Gly Leu Ala Glu Leu Ile Ala Glu Lys Ile Gly Glu Asp Tyr Val
157       500                   505                   510
159 aaa gac ctg agc cag ctg acg aag ctc cac agc ttc ctg ggt gat gat      1700
160 Lys Asp Leu Ser Gln Leu Thr Lys Leu His Ser Phe Leu Gly Asp Asp
161       515                   520                   525
163 gtc ttc ctc cgg gaa ctc gcc aag gtg aag cag gag aat aag ctg aag      1748
164 Val Phe Leu Arg Glu Leu Ala Lys Val Lys Gln Glu Asn Lys Leu Lys
165 530                   535                   540                   545
167 ttt tct cag ttc ctg gag acg gag tac aaa gtg aag atc aac cca tcc      1796
168 Phe Ser Gln Phe Leu Glu Thr Glu Tyr Lys Val Lys Ile Asn Pro Ser
169               550                   555                   560
171 tcc atg ttt gat gtc cag gtg aag agg ata cat gag tac aag cga cag      1844
172 Ser Met Phe Asp Val Gln Val Lys Arg Ile His Glu Tyr Lys Arg Gln
173               565                   570                   575
175 ctc ttg aac tgt ctg cat gtg atc acg atg tac aac cgc att aag aaa      1892
176 Leu Leu Asn Cys Leu His Val Ile Thr Met Tyr Asn Arg Ile Lys Lys
177               580                   585                   590
179 gac cct aag aag tta ttc gtg cca agg aca gtt atc att ggt ggt aaa      1940
180 Asp Pro Lys Lys Leu Phe Val Pro Arg Thr Val Ile Ile Gly Gly Lys
181       595                   600                   605
183 gct gcc cca gga tat cac atg gcc aaa atg atc ata aag ctg atc act      1988
184 Ala Ala Pro Gly Tyr His Met Ala Lys Met Ile Ile Lys Leu Ile Thr
185 610                   615                   620                   625
187 tca gtg gca gat gtg gtg aac aat gac cct atg gtt gga agc aag ttg      2036
188 Ser Val Ala Asp Val Val Asn Asn Asp Pro Met Val Gly Ser Lys Leu
189               630                   635                   640
```

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF3\01272002\J019470.raw**

```
191 aaa gtc atc ttc ttg gag aac tac aga gta tct ctt gct gaa aaa gtc   2084
192 Lys Val Ile Phe Leu Glu Asn Tyr Arg Val Ser Leu Ala Glu Lys Val
193         645                 650                 655
195 att cca gcc aca gat ctg tca gag cag att tcc act gca ggc acc gaa   2132
196 Ile Pro Ala Thr Asp Leu Ser Glu Gln Ile Ser Thr Ala Gly Thr Glu
197         660                 665                 670
199 gcc tcg ggg aca ggc aat atg aag ttc atg cta aat ggg gcc cta act   2180
200 Ala Ser Gly Thr Gly Asn Met Lys Phe Met Leu Asn Gly Ala Leu Thr
201     675                 680                 685
203 atc ggg acc atg gat ggg gcc aat gtg gaa atg gca gaa gaa gct ggg   2228
204 Ile Gly Thr Met Asp Gly Ala Asn Val Glu Met Ala Glu Glu Ala Gly
205 690                 695                 700                 705
207 gaa gag aac ctg ttc atc ttt ggc atg agc ata gat gat gtg gct gct   2276
208 Glu Glu Asn Leu Phe Ile Phe Gly Met Ser Ile Asp Asp Val Ala Ala
209         710                 715                 720
211 ttg gac aag aaa ggg tac gag gca aaa gaa tac tat gag gca ctt cca   2324
212 Leu Asp Lys Lys Gly Tyr Glu Ala Lys Glu Tyr Tyr Glu Ala Leu Pro
213         725                 730                 735
215 gag ctg aag ctg gtc att gat caa att gac aat ggc ttt ttt tct ccc   2372
216 Glu Leu Lys Leu Val Ile Asp Gln Ile Asp Asn Gly Phe Phe Ser Pro
217         740                 745                 750
219 aag cag cct gac ctc ttc aaa gat atc atc aac atg cta ttt tat cat   2420
220 Lys Gln Pro Asp Leu Phe Lys Asp Ile Ile Asn Met Leu Phe Tyr His
221     755                 760                 765
223 gac agg ttt aaa gtc ttt gca gac tac gaa gcc tat gtc aag tgt caa   2468
224 Asp Arg Phe Lys Val Phe Ala Asp Tyr Glu Ala Tyr Val Lys Cys Gln
225 770                 775                 780                 785
227 gat aaa gtg agt cag ctg tac atg aat cca aag gcc tgg aac aca atg   2516
228 Asp Lys Val Ser Gln Leu Tyr Met Asn Pro Lys Ala Trp Asn Thr Met
229         790                 795                 800
231 gta ctc aaa aac ata gct gcc tcg ggg aaa ttc tcc agt gac cga aca   2564
232 Val Leu Lys Asn Ile Ala Ala Ser Gly Lys Phe Ser Ser Asp Arg Thr
233         805                 810                 815
235 att aaa gaa tat gcc caa aac atc tgg aac gtg gaa cct tca gat cta   2612
236 Ile Lys Glu Tyr Ala Gln Asn Ile Trp Asn Val Glu Pro Ser Asp Leu
237         820                 825                 830
239 aag att tct cta tcc aat gaa tct aac aaa gtc aat gga aat tga       2657
240 Lys Ile Ser Leu Ser Asn Glu Ser Asn Lys Val Asn Gly Asn
241         835                 840                 845
243 actctacaat gtctctagaa aacatagctt cttactgaac ttgaacattt ttacaacatt   2717
245 cactggtttt tgttttgtta gctaataatc tataatagtt gagtatctct gggaatgggg   2777
247 agggaaatta tatgtaatag agcttaaaaa taaagtgtca atttccaagg a           2828
250 <210> SEQ ID NO: 2
251 <211> LENGTH: 21
252 <212> TYPE: DNA
253 <213> ORGANISM: Artificial Sequence
255 <220> FEATURE:
256 <223> OTHER INFORMATION: PCR Primer
258 <400> SEQUENCE: 2
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RAW SEQUENCE LISTING   DATE: 01/27/2002
PATENT APPLICATION: **US/10/019,470**   TIME: 19:50:01

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF3\01272002\J019470.raw**

259 catgggccga acattacaga a   21
262 <210> SEQ ID NO: 3
263 <211> LENGTH: 21
264 <212> TYPE: DNA
265 <213> ORGANISM: Artificial Sequence
267 <220> FEATURE:
268 <223> OTHER INFORMATION: PCR Primer
270 <400> SEQUENCE: 3
271 caagaccacc attgccaagt c   21
274 <210> SEQ ID NO: 4
275 <211> LENGTH: 27
276 <212> TYPE: DNA
277 <213> ORGANISM: Artificial Sequence
279 <220> FEATURE:
280 <223> OTHER INFORMATION: PCR Probe
282 <400> SEQUENCE: 4
283 ctgtgatgag gccatttacc agcttgg   27
286 <210> SEQ ID NO: 5
287 <211> LENGTH: 19
288 <212> TYPE: DNA
289 <213> ORGANISM: Artificial Sequence
291 <220> FEATURE:
292 <223> OTHER INFORMATION: PCR Primer
294 <400> SEQUENCE: 5
295 gaaggtgaag gtcggagtc   19
298 <210> SEQ ID NO: 6
299 <211> LENGTH: 20
300 <212> TYPE: DNA
301 <213> ORGANISM: Artificial Sequence
303 <220> FEATURE:
304 <223> OTHER INFORMATION: PCR Primer
306 <400> SEQUENCE: 6
307 gaagatggtg atgggatttc   20
310 <210> SEQ ID NO: 7
311 <211> LENGTH: 20
312 <212> TYPE: DNA
313 <213> ORGANISM: Artificial Sequence
315 <220> FEATURE:
316 <223> OTHER INFORMATION: PCR Probe
318 <400> SEQUENCE: 7
319 caagcttccc gttctcagcc   20
322 <210> SEQ ID NO: 8
323 <211> LENGTH: 20
324 <212> TYPE: DNA
325 <213> ORGANISM: Artificial Sequence
327 <220> FEATURE:
328 <223> OTHER INFORMATION: Antisense Oligonucleotide
330 <400> SEQUENCE: 8
331 ccgccccgcc gcgccaggag   20

VERIFICATION SUMMARY   DATE: 01/27/2002
PATENT APPLICATION: **US/10/019,470**   TIME: 19:50:02

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF3\01272002\J019470.raw**

L:10 M:270 C: Current Application Number differs, Replaced Current Application No
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

PCT10

RAW SEQUENCE LISTING   DATE: 01/22/2002
PATENT APPLICATION: US/10/019,470   TIME: 10:45:12

Input Set : **A:\Sequence**
Output Set: **N:\CRF3\01182002\J019470.raw**

Does Not Comply
Corrected Diskette Ne...

```
     3 <110> APPLICANT: Brett P. Monia
     4         Lex M. Cowsert
     6 <120> TITLE OF INVENTION: ANTISENSE MODULATION OF LIVER GLYCOGEN PHOSPHORYLASE
EXPRESSION
     8 <130> FILE REFERENCE: RTSP-0240
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/019,470
C--> 10 <141> CURRENT FILING DATE: 2001-12-28
    10 <150> PRIOR APPLICATION NUMBER: US 09/357,071
    11 <151> PRIOR·FILING DATE: 1999-07-19
    13 <160> NUMBER OF SEQ ID NOS: 47
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ERRORED SEQUENCES

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   790 <210> SEQ ID NO: 47
   791 <211> LENGTH: 20
   792 <212> TYPE: DNA
   793 <213> ORGANISM: Artificial Sequence
   795 <220> FEATURE:
   796 <223> OTHER INFORMATION: Antisense Oligonucleotide
   798 <400> SEQUENCE: 47
   799 ccccattccc agagatactc                                              20
E--> 800 (1
E--> 803 (1)
```

VERIFICATION SUMMARY   DATE: 01/22/2002
PATENT APPLICATION: US/10/019,470   TIME: 10:45:13

Input Set : **A:\Sequence**
Output Set: **N:\CRF3\01182002\J019470.raw**

L:10 M:270 C: Current Application Number differs, Replaced Current Application No
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:800 M:254 E: No. of Bases conflict, LENGTH:Input:1 Counted:20 SEQ:47
M:254 Repeated in SeqNo=47